San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

JUL 2 5 2011

Gerardo C. Rios, Chief
Permits Office
Air Division
U.S. EPA - Region IX
75 Hawthorne St
San Francisco, CA 94105

Re: **Proposed Authority to Construct / Certificate of Conformity (Minor Mod)**
District Facility # S-1075
Project # S-1112626

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authority to Construct for Styrotek, located at approximately 4 miles east of Delano at the intersection of Road 176 and Avenue 4, in Kern County, which has been issued a Title V permit. Styrotek is requesting that a Certificate of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. Styrotek is proposing to lower the NOX emissions limit of the previously installed ultra-low NOx burner from 15 ppmv of NOx to 9 ppmv

Enclosed is the engineering evaluation of this application, a copy of the current Title V permit, and proposed Authority to Construct # S-1075-3-12 with Certificate of Conformity. After demonstrating compliance with the Authority to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

for David Warner
Director of Permit Services

Enclosures
cc: Steve Davidson, Permit Services

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
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San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

JUL 25 2011

Dale Arthur
Styrotek
P.O. Box 1180
Delano, CA 93216-1180

Re: Proposed Authority to Construct / Certificate of Conformity (Minor Mod)
District Facility # S-1075
Project # S-1112626

Dear Mr. Arthur:

Enclosed for your review is the District's analysis of your application for Authority to Construct for the facility identified above. You have requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. Styrotek is proposing to lower the NOX emissions limit of the previously installed ultra-low NOx burner from 15 ppmv of NOx to 9 ppmv

After addressing any EPA comments made during the 45-day comment period, the Authority to Construct will be issued to the facility with a Certificate of Conformity. Prior to operating with modifications authorized by the Authority to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

Thank you for your cooperation in this matter.

Sincerely,

David Warner
Director of Permit Services

Enclosures
cc: Steve Davidson, Permit Services

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San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review

Facility Name:	Styrotek, Inc.	Date:	July 22, 2011
Mailing Address:	P.O. Box 1180	Engineer:	Steve Davidson
	Delano, CA 93216-1180	Lead Engineer:	Allan Phillips
Contact Person:	Dale Arthur Doug McCormick, Insight Enviromental		
Telephone:	661-282-2200 661-282-2200		
Fax:	- -		
E-Mail:	dwmccorm@insenv.com		
Application #(s):	S-1075-3-12		
Project #:	S-1112626		
Deemed Complete:	June 21, 2011		

AP Supv AQE
JUL 2 2 2011

I. Proposal

Styrotek, Inc. (hereafter referred to as Styrotek) operates an expanded polystyrene molding operation in Delano. Styrotek is requesting an Authority to Construct (S-1075-3-12) to lower the NO_X emissions limit of the previously installed ultra-low NO_x burner from 15 ppmv of NO_x to 9 ppmv. This modification is proposed solely to comply with District Rule 4320 requirements. Additionally, there will be no equipment changes or change in method of operation of the boiler; therefore, according to District policy FYI 111 Category 5, the proposed changes to the permit are not NSR modifications.

Styrotek received their Title V Permit on October 31, 2004. This modification can be classified as a Title V minor modification pursuant to Rule 2520, Section 3.20, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct. Styrotek must apply to administratively amend their Title V Operating Permit to include the requirements of the ATC(s) issued with this project.

II. Applicable Rules

District Rule 2201	New and Modified Stationary Source Review Rule (4/21/11) – N/A not a NSR Modification
District Rule 2520	Federally Mandated Operating Permits (6/21/01)
District Rule 4101	Visible Emissions (2/17/05)
District Rule 4102	Nuisance (12/17/92)
District Rule 4201	Particulate Matter Concentration (12/17/92)
District Rule 4301	Fuel Burning Equipment (12/17/92)
District Rule 4305	Boilers, Steam Generators and Process Heaters – Phase 2 (8/21/03)
District Rule 4306	Boilers, Steam Generators and Process Heaters – Phase 3 (10/16/08)

District Rule 4320	Advanced Emission Reductions Options for Boilers, Steam Generators, and Process Heaters Greater than 5.0 MMBtu/hr(10/16/08)
District Rule 4351	Boilers, Steam Generators and Process Heaters – Phase 1 (8/21/03)
District Rule 4801	Sulfur Compounds (12/17/92)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice

Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

Styrotek is located approximately 4 miles east of Delano at the intersection of Road 176 and Avenue 4, in Kern County. This operation is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

The Cleaver-Brooks boiler provides steam to Styrotek's polystyrene bead pre-expansion and molding processes. In the expansion process, pressurized steam from the boiler is injected into the bottom of a pre-expander cylinder to provide sufficient heat to the beads so that they soften. An expanding agent, pentane, within the beads puffs them up four to six times their original size. A vacuum suction system collects any pentane released in this process and routes the vapors to an RTO for incineration.

V. Equipment Listing

Pre-Project Equipment Description:

ATC S-1075-3-10: 16.33 MMBTULHR NATURAL GAS/LPG FIRED CLEAVER BROOKS BOILER WITH A CLEAVER BROOKS, MODEL NTI-15400HP ULTRA LOW NOX BURNER AND AN INTERNAL FLUE GAS RECIRCULATION SYSTEM

Proposed Modification:

ATC S-1075-3-12: MODIFICATION OF 16.33 MMBTU/HR NATURAL GAS/LPG FIRED CLEAVER BROOKS BOILER WITH A CLEAVER BROOKS, MODEL NTI-15400HP ULTRA LOW NOX BURNER AND AN INTERNAL FLUE GAS RECIRCULATION SYSTEM: LOWER PERMITTED NOX EMISSIONS LIMIT TO 9 PPMV @ 3% O2 FOR RULE 4320 COMPLIANCE

Post Project Equipment Description:

ATC S-1075-3-12: 16.33 MMBTULHR NATURAL GAS/LPG FIRED CLEAVER BROOKS BOILER WITH A CLEAVER BROOKS, MODEL NTI-15400HP ULTRA

LOW NOX BURNER AND AN INTERNAL FLUE GAS RECIRCULATION SYSTEM

VI. Emission Control Technology Evaluation

Low-NO_X burners reduce NO_X formation by producing lower flame temperatures (and longer flames) than conventional burners. Conventional burners thoroughly mix all the fuel and air in a single stage just prior to combustion, whereas low-NO_X burners delay the mixing of fuel and air by introducing the fuel (or sometimes the air) in multiple stages. Generally, in the first combustion stage, the air-fuel mixture is fuel rich. In a fuel rich environment, all the oxygen will be consumed in reactions with the fuel, leaving no excess oxygen available to react with nitrogen to produce thermal NO_X. In the secondary and tertiary stages, the combustion zone is maintained in a fuel-lean environment. The excess air in these stages helps to reduce the flame temperature so that the reaction between the excess oxygen with nitrogen is minimized.

Use of flue gas re-circulation (FGR) can reduce nitrogen oxides (NO_X) emissions by 60% to 70%. In an FGR system, a portion of the flue gas is re-circulated back to the inlet air. As flue gas is composed mainly of nitrogen and the products of combustion, it is much lower in oxygen than the inlet air and contains virtually no combustible hydrocarbons to burn. Thus, flue gas is practically inert. The addition of an inert mass of gas to the combustion reaction serves to absorb heat without producing heat, thereby lowering the flame temperature. Since thermal NO_X is formed by high flame temperatures, the lower flame temperatures produced by FGR serve to reduce thermal NO_X.

No change to the existing control equipment is proposed or expected as a result of this project.

VII. General Calculations

A. Assumptions

- The maximum operating schedule is 24 hours per day
- The maximum duration for startup and shutdown time shall not exceed 2.0 hours per day
- The unit can be fired on PUC regulated natural gas or commercial LPG
- Annual pre-project and post-project potential to emit is calculated based on 365 days of operation per year
- Natural Gas Heating Value: 1,000 Btu/scf (District Practice)
- F-Factor for Natural Gas: 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix B)
- F-Factor for LPG: 8,578 dscf/MMBtu corrected to 60°F (40 CFR 60, Appendix B)
- The project is not subject to Rule 2201 as discussed in Section I. Therefore, only PE1, PE2, and QNEC will be calculated for inclusion in the PAS emissions profiles.

B. Emission Factors

Pre-Project Emission Factors (EF1):

For this unit, the pre-project emission factors are listed in the tables below.

Steady State Emission Factors:

Natural Gas Combustion:

Pollutant	Pre-Project Emission Factors (EF1)		Source
NO_X	0.018 lb-NO_X/MMBtu	15 ppmvd NO_X (@ 3%O2)	Current Permit
SO_X	0.00285 lb-SO_X/MMBtu	N/A	District Policy APR 1720
PM_{10}	0.005 lb-PM_{10}/MMBtu	N/A	Current Permit
CO	0.148 lb-CO/MMBtu	200 ppmvd NO_X (@ 3%O2)	Current Permit
VOC	0.003 lb-VOC/MMBtu	N/A	Current Permit

LPG Combustion:

Pollutant	Pre-Project Emission Factors (EF1)		Source
NO_X	0.018 lb-NO_X/MMBtu	15 ppmvd NO_X (@ 3%O2)	Current Permit
SO_X	0.0034 lb-SO_X/MMBtu	N/A	Current Permit
PM_{10}	0.005 lb-PM_{10}/MMBtu	N/A	Current Permit
CO	0.148 lb-CO/MMBtu	200 ppmvd NO_X (@ 3%O2)	Current Permit
VOC	0.003 lb-VOC/MMBtu	N/A	Current Permit

Start-up and Shutdown Emission Factors:

Pollutant	Pre-Project Emission Factors			Source
NO_X	0.1 lb/MMBtu	83.6 ppmv (@ 3%O2)	1.63 lb/hr	Current Permit
SO_X	0.0034 lb-SO_X/MMBtu	N/A	0.06 lb/hr	SO_X
PM_{10}	0.005 lb/MMBtu	N/A	0.08 lb/hr	Current Permit
CO	0.148 lb/MMBtu	200 ppmv (@ 3%O2)	2.42 lb/hr	Current Permit
VOC	0.003 lb/MMBtu	N/A	0.05 lb/hr	Current Permit

Post-Project Emission Factors (EF2):

Steady State Emission Factors:

Natural Gas Combustion:

Pollutant	Post-Project Emission Factors (EF2)		Source
NO_X	0.011 lb-NO_X/MMBtu	9 ppmvd NO_X (@ 3%O2)	Applicant's proposed
SO_X	0.00285 lb-SO_X/MMBtu	N/A	Current Permit
PM_{10}	0.005 lb-PM_{10}/MMBtu	N/A	Current Permit
CO	0.148 lb-CO/MMBtu	200 ppmvd NO_X (@ 3%O2)	Current Permit
VOC	0.003 lb-VOC/MMBtu	N/A	Current Permit

LPG Combustion:

Pollutant	Post-Project Emission Factors (EF2)		Source
NO_X	0.011 lb-NO_X/MMBtu	9 ppmvd NO_X (@ 3%O2)	Applicant's proposed
SO_X	0.0034 lb-SO_X/MMBtu	N/A	Current Permit
PM_{10}	0.005 lb-PM_{10}/MMBtu	N/A	Current Permit
CO	0.148 lb-CO/MMBtu	200 ppmvd NO_X (@ 3%O2)	Current Permit
VOC	0.003 lb-VOC/MMBtu	N/A	Current Permit

Start-up and Shutdown Emission Factors:

Pollutant	Post-Project Emission Factors			Source
NO_X	0.1 lb/MMBtu	83.6 ppmv (@ 3%O2)	1.63 lb/hr	Current Permit
SO_X	0.0034 lb-SO_X/MMBtu	N/A	0.06 lb/hr	Current Permit
PM_{10}	0.005 lb/MMBtu	N/A	0.08 lb/hr	Current Permit
CO	0.148 lb/MMBtu	200 ppmv (@ 3%O2)	2.42 lb/hr	Current Permit
VOC	0.003 lb/MMBtu	N/A	0.05 lb/hr	Current Permit

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Daily PE (PE1):

The current permit limits total amount of startup and shutdown time will not exceed 2.0 hours during any given day. Therefore, the NO_X, CO, VOC, PM_{10} and SO_X daily PE values will be calculated using the worst case emission factors listed above from the combustion of either fuel, the heat input rating of the burner and the maximum hours of operation during any given day.

PE (lb/day) = [($EF_{startup/shutdown}$ (lb/MMBtu) x Burner Rating (MMBtu/hr)) x 2 (hr/day)] + [($EF_{steady\ state}$ (lb/MMBtu) x Burner Rating (MMBtu/hr)) x 22 (hr/day)]

Pollutant	Emission Factor (lb/MMBtu)	Burner Rating (MMBtu/hr)	PE (lb/hour)	Operating Hours (hr/day)	PE1 (lb/day)
NO_X (Start-up or Shutdown)	0.10	16.33	1.63	2	3.3
NO_X (Steady State)	0.018	16.33	0.29	22	6.4
CO	0.148	16.33	2.42	24	58.1
VOC	0.003	16.33	0.05	24	1.2
PM_{10}	0.005	16.33	0.08	24	1.9
SO_X	0.0034	16.33	0.06	24	1.4

Annual PE2:

The applicant is not proposing to limit the annual operation of the boiler on either fuel. Therefore, the annual PE for all criteria pollutants will be calculated using the existing daily PE values listed above and a worst case operating scenario of 365 days per year

Annual PE (lb/year) = Daily PE (lb/day) x 365 (day/year)

Pollutant	Daily PE (lb/day)	Operation (day/year)	Annual PE (lb/year)
NO_X	9.7	365	3,541
CO	58.1	365	21,207
VOC	1.2	365	438
PM_{10}	1.9	365	694
SO_X	1.4	365	511

2. Post Project Potential to Emit (PE2)

Daily PE (PE2):

The applicant is proposing that the total amount of startup and shutdown time will not exceed 2.0 hours during any given day. Therefore, the NO_X, CO, VOC, PM_{10} and SO_X daily PE values will be calculated using the worst case emission factors listed above from the combustion of either fuel, the heat input rating of the burner and the maximum hours of operation during any given day.

PE (lb/day) = [($EF_{startup/shutdown}$ (lb/MMBtu) x Burner Rating (MMBtu/hr)) x 2 (hr/day)] + [($EF_{steady\ state}$ (lb/MMBtu) x Burner Rating (MMBtu/hr)) x 22 (hr/day)]

Pollutant	Emission Factor (lb/MMBtu)	Burner Rating (MMBtu/hr)	PE (lb/hour)	Operating Hours (hr/day)	PE (lb/day)
NO_X (Start-up or Shutdown)	0.10	16.33	1.63	2	3.3
NO_X (Steady State)	0.011	16.33	0.18	22	4.0
CO	0.148	16.33	2.42	24	58.1
VOC	0.003	16.33	0.05	24	1.2
PM_{10}	0.005	16.33	0.08	24	1.9
SO_X	0.0034	16.33	0.06	24	1.4

Annual PE2:

The applicant is not proposing to limit the annual operation of the boiler on either fuel. Therefore, the annual PE for all criteria pollutants will be calculated using the existing daily PE values listed above and a worst case operating scenario of 365 days per year

Annual PE (lb/year) = Daily PE (lb/day) x 365 (day/year)

Pollutant	Daily PE (lb/day)	Operation (day/year)	Annual PE (lb/year)
NO_X	7.3	365	2665
CO	58.1	365	21,207
VOC	1.2	365	438
PM_{10}	1.9	365	694
SO_X	1.4	365	511

- The project is not subject to Rule 2201 as discussed in Section I. Therefore, only PE1 and PE2 will be calculated for inclusion in the PAS emissions profiles.

3. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen.

QNEC is calculated as follows:

QNEC = (PE2 – BE)/4, where:
QNEC = Quarterly Net Emissions Change for each emissions unit, lb/qtr
PE2 = Post Project Potential to Emit for each emissions unit, lb/yr
BE = Baseline Emissions (per Rule 2201) for each emissions unit, lb/yr

Quarterly Net Emissions Change (QNEC)					
	NO_x	SO_x	PM_{10}	CO	VOC
PE2 (lb/yr)	2665	511	694	21,207	438
PE2 (lb/qtr)	**666**	**128**	**174**	**5,302**	**110**
PE1 (lb/yr)	3,541	511	694	21,207	438
PE1 (lb/qtr)	**885**	**128**	**174**	**5,302**	**110**
QNEC	**-55**	**0**	**0**	**0**	**0**

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

This modification is proposed solely to lower the permitted NO_x emissions limit to 9 ppm for comply with District Rule 4320 requirements. There will be no equipment changes or change in method of operation of the boiler; therefore, according to District policy FYI 111 Category 5, the proposed changes to the permit are not NSR modifications and this Rule does not apply.

Rule 2520 Federally Mandated Operating Permits

This facility is subject to this Rule, and has received their Title V Operating Permit. The proposed modification is a Minor Modification to the Title V Permit pursuant to Section 3.20 of this rule:

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;
4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source

has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and

5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility may operate under the ATC upon submittal of the Title V administrative amendment application.

Rule 4001 New Source Performance Standards (NSPS)

40 CFR Part 60, Subpart Dc applies to Small Industrial-Commercial-Industrial Steam Generators between 10 MMBtu/hr and 100 MMBtu/hr (post-6/9/89 construction, modification or, reconstruction).

The subject boiler has a rating of 16.33 MMBtu/hr and is fired on natural gas. Subpart Dc has no standards for gas-fired boilers. Therefore the subject boilers are not an affected facility and subpart Dc does not apply.

Rule 4101 Visible Emissions

District Rule 4101, Section 5.0, requires that no air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour, which is dark or darker than Ringlemann 1 or equivalent to 20% opacity. The equipment in this project is expected to continue to comply with the opacity limit of this rule.

Rule 4102 Nuisance

Section 4.0 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations provided the equipment is well maintained. Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 - Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

Since the applicant is not proposing an increase in emissions or fuel usage with this project, a health risk assessment is not necessary and no further risk analysis is required.

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

$$0.0076 \quad \frac{lb \cdot PM_{10}}{MMBtu} \times \frac{MMBtu}{8{,}713\,dscf} \times \frac{7{,}000\,grain}{lb} = 0.004 \quad \frac{grain}{dscf}$$

Since 0.004 grain/dscf is less than 0.1 grain/dscf, compliance with this rule is expected.

Rule 4301 Fuel Burning Equipment

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot. As natural gas-fired combustion equipment emits negligible amounts of particulate matter, compliance with this rule is expected.

Rule 4305 Boilers, Steam Generators and Process Heaters – Phase 2 (8/21/03)

This rule limits NOx and CO emissions from boilers, steam generators, and process heaters rated greater than 5 MMBtu/hr. The subject units are currently in compliance with the applicable provisions of this rule. Source testing, monitoring and recordkeeping requirements of Rule 4320 are equal to or more stringent than the requirements of this rule; therefore, continued compliance is expected

District Rule 4306 Boilers, Steam Generators and Process Heaters – Phase 3

This rule limits NOx and CO emissions from boilers, steam generators, and process heaters rated greater than 5 MMBtu/hr. The subject units are currently in compliance with the applicable provisions of this rule. Source testing, monitoring and recordkeeping requirements of Rule 4320 are equal to or more stringent than the requirements of this rule; therefore, continued compliance is expected

District Rule 4320 Advanced Emission Reduction Options for Boilers, Steam Generators and Process Heaters Greater than 5 MMBtu/hr

This rule limits NOx, CO, SO2 and PM10 emissions from boilers, steam generators and process heaters rated greater than 5 MMBtu/hr. This rule also provides a compliance option of payment of fees in proportion to the actual amount of NOx emitted over the previous year.

The unit in this project is rated at greater than 5 MMBtu/hr heat input and is subject to this rule.

Section 5.1 NOx Emission Limits

Section 5.1 states that an operator of a unit(s) subject to this rule shall comply with all applicable requirements of the rule and one of the following, on a unit-by-unit basis:

5.1.1 Operate the unit to comply with the emission limits specified in Sections 5.2 and 5.4; or
5.1.2 Pay an annual emissions fee to the District as specified in Section 5.3 and comply with the control requirements specified in Section 5.4; or
5.1.3 Comply with the applicable Low-use Unit requirements of Section 5.5.

Section 5.2.1 states that on and after the indicated Compliance Deadline, units shall not be operated in a manner which exceeds the applicable NOx limit specified in Table 1 of this rule, shown below. On and after October 1, 2008, units shall not be operated in a manner to which exceeds a carbon dioxide (CO) emissions limit of 400 ppmv.

Rule 4320 NOx Emission Limits			
Category	**NOx Limit**	**Authority to Construct**	**Compliance Deadline**
A. Units with a total rated heat input > 5.0 MMBtu/hr to ≤ 20.0 MMBtu/hr, except for Categories C through G units	a) Standard Schedule 9 ppmv or 0.011 lb/MMBtu; or	July 1, 2011	July 1, 2012
	b) Enhanced Schedule 6 ppmv or 0.007 lb/MMBtu	January 1, 2013	January 1, 2014

Styrotek is proposing to comply with Category A – standard schedule but will have a NOx limit of 9 ppmv @ 3% O2 (0.011 lb/MMBtu). Therefore, compliance with the rule emission requirements is expected.

Section 5.2.4 applies to units firing on a combination of gaseous and liquid fuels. Styrotek is not proposing to fire on liquid fuels.

Section 5.4 Particulate Matter Control Requirements

Section 5.4.1 states that to limit particulate matter emissions, an operator shall comply with one of the options listed in the rule.

Section 5.4.1.1 provides option for the operator to comply with the rule by firing the unit exclusively on PUC-quality gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases;

Section 5.4.1.2 provides option for the operator to comply with the rule by limiting the fuel sulfur content to no more than five (5) grains of total sulfur per hundred (100) standard cubic feet.

Section 5.4.1.3 provides option for the operator to comply with the rule by installing and properly operating an emissions control system that reduces SO2 emissions by at least 95% by weight; or limit exhaust SO2 to less than or equal to 9 ppmv corrected to 3 % O2.

The boiler will be fired on PUC-quality natural gas and LPG. Compliance with this section of the rule is expected.

Section 5.5 Low-Use Unit

This section discusses the requirements of low-use units. Styrotek is not requesting low-use status; therefore, this section of the rule is not applicable to this project.

Section 5.6 Startup and Shutdown Provisions

Section 5.6 states that on and after the full compliance deadline specified in Section 5.0, the applicable emission limits of Sections 5.2 Table 1 and 5.5.2 shall not apply during start-up or shutdown provided an operator complies with the requirements specified in Sections 5.6.1 through 5.6.5.

Emissions during start-up and shutdown will not be subject to the emission limits in Sections 5.2 and 5.2.2. The following conditions will be listed on the ATC:

- Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. The operator shall maintain daily records of the duration of start-up and shutdown periods. [District Rules 4305, 4306, and 4320]

- Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4305, 4306, and 4320]

Section 5.7 Monitoring Provisions

Section 5.7.1 requires that permit units subject to District Rule 4320, Section 5.2 shall either install and maintain an operational APCO approved Continuous Emission Monitoring System (CEMS) for NO_X, CO and O_2, or implement an APCO-approved alternate monitoring.

Styrotek has proposed to implement Alternate Monitoring Scheme A (pursuant to District Policy SSP-1105), which requires periodic monitoring of NO_X, CO and O_2 concentrations. The following conditions will be placed in the ATCs to ensure compliance with the requirements of this alternate monitoring plan:

- *{2395} The permittee shall monitor and record the stack concentration of NO_X, CO, and O2 at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320]*

- *If the NOx or CO concentrations corrected to 3%, as measured by the portable analyzer exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306 and 4320]*

- *All NOx, CO and O2 emission readings shall be taken with the unit operating at either at conditions representative of normal operations or conditions specified in the Permit to Operate. The NOx, CO, and O2 analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute sample period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive minute period. [District Rules 4305, 4306 and 4320]*

- *The permittee shall maintain records of: (1) the date and time of NO_X, CO, and O_2, (2) the O_2 concentration in percent by volume and the measured NOx and CO concentrations corrected to 3% O_2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306 and 4320]*

Section 5.7.6 requires monitoring SOx emissions. The following condition will be placed in the ATCs to be in compliance with this rule requirement:

- Permittee shall determine sulfur content of combusted gas annually or shall demonstrate during District inspection that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1070, 1081, and 4320] N

Section 5.8 Compliance Determination

Section 5.8.1 requires that the operator of any unit have the option of complying with either the applicable heat input (lb/MMBtu), emission limits or the concentration (ppmv) emission limits specified in Section 5.2. The emission limits selected to demonstrate compliance shall be specified in the source test proposal pursuant to Rule 1081 (Source Sampling). Therefore, the following condition will be retained or listed on the ATCs as follows:

- *{2976} The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 4306 and 4320]*

Section 5.8.2 requires that all emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0. Therefore, the following permit condition will be listed on the ATCs as follows:

- *{2972} All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. Unless otherwise specified in the Permit to Operate, no determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4320. For the purposes of permittee-performed alternate monitoring, emissions measurements may be performed at any time after the unit reaches conditions representative of normal operation. [District Rules 4305, 4306 and 4320]*

Section 5.8.4 requires that for emissions monitoring pursuant to Sections 5.7.1 and 6.3.1 using a portable NO_X analyzer as part of an APCO approved Alternate Emissions Monitoring System, emission readings shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15-consecutive-minute sample reading or by taking at least five (5) readings evenly spaced out over the 15-consecutive-minute period. Therefore, the following previously listed permit condition will be on the ATCs as follows:

- *{2937}All NOx, CO and O2 emission readings shall be taken with the unit operating at either at conditions representative of normal operations or conditions specified in the Permit to Operate. The NOx, CO, and O2 analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute sample period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive minute period. [District Rules 4305, 4306 and 4320]*

Section 5.8.5 requires that for emissions source testing performed pursuant to Section 6.3.1 for the purpose of determining compliance with an applicable standard or numerical limitation of this rule, the arithmetic average of three (3) 30-consecutive-minute test runs shall apply. If two (2) of three (3) runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. Therefore, the following permit condition will be listed on the permit as follows:

- *{2980} For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305, 4306 and 4320]*

Section 6.1 Recordkeeping

Section 6.1 requires that the records required by Sections 6.1.1 through 6.1.5 shall be maintained for five calendar years and shall be made available to the APCO and EPA upon

request. Failure to maintain records or information contained in the records that demonstrate noncompliance with the applicable requirements of this rule shall constitute a violation of this rule.

A permit condition will be listed on the permits as follows:

- *All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 4305, 4306 and 4320]*

Section 6.2, Test Methods

Section 6.2 identifies test methods to be used when determining compliance with the rule. The following existing permit conditions will be retained on the ATCs:

- *{109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]*

- *The following test methods shall be used: NO_X (ppmv) - EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) - EPA Method 19; CO (ppmv) - EPA Method 10 or ARB Method 100; Stack gas oxygen (O_2) - EPA Method 3 or 3A or ARB Method 100; stack gas velocities – EPA Method 2; Stack gas moisture content – EPA Method 4; SOx – EPA Method 6C or 8 or ARB Method 100; fuel gas sulfur as H2S content – EPA Method 11 or 15; and fuel hhv (MMBtu) –ASTM D 1826* or D 1945 in conjunction with ASTM D 3588. *[District Rules 4305, 4306 and 4320]*

Section 6.3, Compliance Testing

Section 6.3.1 requires that each unit subject to the requirements in Section 5.2 shall be source tested at least once every 12 months, except if two consecutive annual source tests demonstrate compliance, source testing may be performed every 36 months. If such a source test demonstrates non-compliance, source testing shall revert to every 12 months. The following conditions will be included in the appropriate ATCs:

- *A source test to demonstrate compliance with NOx and CO emission limits shall be performed within 60 days of startup of this unit. [District Rules 2201 and 4320]*

- *Source testing to measure propane-combustion NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months (no more than 30 days before or after the required annual source test date). After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months (no more than 30 days before or after the required 36-month source test date). If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201 and 4320]*

- *{110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]*

Section 6.3.1.2 specifies tune-up requirements. Styrotek will use pre-approved Alternate Monitoring Scheme "A" using a portable analyzer. Therefore the tune-up requirements listed in Section 6.3.1.2 are not applicable. This section also requires that during the 36-month source testing interval, the owner/operator shall monitor monthly the operational characteristics recommended by the unit manufacturer. Since the pre-approved alternate monitoring requires monthly monitoring of NOx, CO and O2 exhaust emission concentrations using a portable analyzer, the operational characteristics monitoring requirements is satisfied.

Section 6.4 Emission Control Plan

Section 6.4.1 requires that the operator of any unit shall submit to the APCO for approval an Emissions Control Plan according to the compliance schedule in Section 7.0.

The proposed unit will be in compliance with the emissions limits listed in Table 1, Section 5.1 of this rule and with periodic monitoring and source testing requirements. Therefore, this current application for the new proposed unit satisfies the requirements of the Emission Control Plan, as listed in Section 6.4. No further discussion is required.

Conclusion

Conditions will be incorporated into the ATCs in order to ensure compliance with each section of this rule, see attached draft ATCs. Therefore, compliance with District Rule 4320 requirements is expected.

District Rule 4351 Boilers, Steam Generators and Process Heaters – Phase 1

This rule applies to boilers, steam generators, and process heaters at NO_x Major Sources that are not located west of Interstate 5 in Fresno, Kings, or Kern counties. If applicable, the emission limits, monitoring provisions, and testing requirements of this rule are satisfied when the unit is operated in compliance with Rule 4320. Therefore, compliance with this rule is expected.

Rule 4801 Sulfur Compounds

A person shall not discharge into the atmosphere sulfur compounds, which would exist as a liquid or gas at standard conditions, exceeding in concentration at the point of discharge: 0.2 % by volume calculated as SO_2, on a dry basis averaged over 15 consecutive minutes.

Using the ideal gas equation and the emission factors presented in Section VII, the sulfur compound emissions are calculated as follows:

Volume $SO_2 = \frac{n\,RT}{P}$

Where:
n = moles SO_2

R (Universal Gas Constant) = $\frac{10.73\,psi \cdot ft^3}{lb \cdot mol \cdot °R}$

T (Standard Temperature) = 60°F = 520°R
P (Standard Pressure) = 14.7 psi

EPA F-Factor for propane: 8,713 dscf/MM @ 60 deg F

$$\frac{0.0034\,lb-SOx}{MMBtu} \times \frac{MMBtu}{8{,}578\,dscf} \times \frac{1\,lb \cdot mol}{64\,lb} \times \frac{10.73\,psi \cdot ft^3}{lb \cdot mol \cdot °R} \times \frac{520°R}{14.7\,psi} \times \frac{1{,}000{,}000 \cdot parts}{million} = 2.35\frac{parts}{million}$$

$SulfurConcentration = 2.35\frac{parts}{million}$ < 2,000 ppmv (or 0.2%),

Therefore compliance with District Rule 4801 requirements is expected.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The San Joaquin Valley Unified Air Pollution Control District (District) adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

The District's engineering evaluation (this document) demonstrates that the project would not result in an increase in project specific greenhouse gas emissions. The

District therefore concludes that the project would have a less than cumulatively significant impact on global climate change.

District CEQA Findings

The District is the Lead Agency for this project because there is no other agency with broader statutory authority over this project. The District performed an Engineering Evaluation (this document) for the proposed project and determined that the activity will occur at an existing facility and the project involves negligible expansion of the existing use. Furthermore, the District determined that the activity will not have a significant effect on the environment. The District finds that the activity is categorically exempt from the provisions of CEQA pursuant to CEQA Guideline § 15031 (Existing Facilities), and finds that the project is exempt per the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment (CEQA Guidelines §15061(b)(3)).

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful COC noticing period, issue Authority to Construct S-1075-3-12 subject to the permit conditions on the attached draft Authority to Construct in Appendix C.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1075-3-12	3020-02-H	16.33 MMBtu/hr	$1030.00

Appendices

A: Current Operating Permit
B: Draft ATC
C: Emissions Profile

Appendix A

Current Operating Permit

San Joaquin Valley
Air Pollution Control District

PERMIT UNIT: S-1075-3-10 **EXPIRATION DATE:** 06/30/2009

SECTION: NE32 **TOWNSHIP:** 24S **RANGE:** 26E

EQUIPMENT DESCRIPTION:
16.33 MMBTULHR NATURAL GAS/LPG FIRED CLEAVER BROOKS BOILER WITH A CLEAVER BROOKS, MODEL NTI-15400HP ULTRA LOW NOX BURNER AND AN INTERNAL FLUE GAS RECIRCULATION SYSTEM

PERMIT UNIT REQUIREMENTS

1. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
2. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
3. The unit shall only be fired on PUC-regulated natural gas or commercial LPG. [District NSR Rule] Federally Enforceable Through Title V Permit
4. During start-up and shutdown, emissions from the exhaust of this boiler shall not exceed any of the following limits: 1.63 lb-NOx/hr; 2.42 lb-CO/hr; 0.05 lb-VOC/hr; 0.08 lb-PM10/hr; or 0.06 lb-SOx/hr. [District NSR Rule and District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
5. The total duration of start-up and shutdown time shall not exceed 2.0 hours per day. [District NSR Rule and District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
6. The emission control systems shall be in operation and emissions shall be minimized insofar as technologically feasible during startup and shutdown. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
7. Except during start-up and shutdown, while fired on natural gas, emissions from the exhaust of this boiler shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu; 200 ppmvd CO @ 3% O2 or 0.148 lb-CO/MMBtu; 0.003 lb-VOC/MMBtu; 0.005 lb-PM10/MMBtu; or 0.00285 lb-SOx/MMBtu. [District NSR Rule and District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
8. Except during start-up and shutdown, while fired on LPG, emissions from the exhaust of this boiler shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.018 lb-NOx/MMBtu; 200 ppmvd CO @ 3% O2 or 0.148 lb-CO/MMBtu; 0.003 lb-VOC/MMBtu; 0.005 lb-PM10/MMBtu; or 0.0034 lb-SOx/MMBtu [District NSR Rule and District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
9. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit
10. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

23. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

24. The permittee shall maintain daily records of the start-up and shutdown durations and number of occurrences of each. [District Rules 4305 and 4306] Federally Enforceable Through Title V Permit

25. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2520, 9.4.2, 4305 and 4306] Federally Enforceable Through Title V Permit

Appendix B

Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

PERMIT NO: S-1075-3-12

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: STYROTEK INC
MAILING ADDRESS: PO BOX 1180
DELANO, CA 93216-1180

LOCATION: 545 ROAD 176
(ROAD 176 & AVENUE 4)
DELANO, CA 93215

SECTION: NE32 **TOWNSHIP:** 24S **RANGE:** 26E

EQUIPMENT DESCRIPTION:
MODIFICATION OF 16.33 MMBTU/HR NATURAL GAS/LPG FIRED CLEAVER BROOKS BOILER WITH A CLEAVER BROOKS, MODEL NTI-15400HP ULTRA LOW NOX BURNER AND AN INTERNAL FLUE GAS RECIRCULATION SYSTEM: LOWER PERMITTED NOX EMISSIONS LIMIT TO 9 PPMV @ 3% O2 FOR RULE 4320 COMPLIANCE

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District NSR Rule] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
4. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
5. The unit shall only be fired on PUC-regulated natural gas or commercial LPG. [District NSR Rule] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services
S-1075-3-12 : Jul 22 2011 9:50AM – DAVIDSOS : Joint Inspection NOT Required

20. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 4305 , 4306, and 4320] Federally Enforceable Through Title V Permit

21. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

22. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

23. If either the NOx or CO concentrations corrected to 3% O2, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

24. All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

25. Permittee shall determine sulfur content of combusted gas annually or shall demonstrate during District inspection that the combusted gas is provided from a PUC or FERC regulated source. [District Rules 1070, 1081, and 4320]

26. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

27. The permittee shall maintain daily records of the start-up and shutdown durations and number of occurrences of each. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

28. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070, 2520, 9.4.2, 4305 , 4306, and 4320] Federally Enforceable Through Title V Permit

Appendix C

Emissions Profile

Application Emissions

Permit #: S-1075-3-12
Facility: STYROTEK INC

Last Updated
07/22/2011 DAVIDSOS

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	2665.0	475.0	730.0	21170.0	438.0
Daily Emis. Limit (lb/Day)	7.3	1.3	2.0	58.0	1.2
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	-55.0	0.0	0.0	0.0	0.0
Q2:	-55.0	0.0	0.0	0.0	0.0
Q3:	-55.0	0.0	0.0	0.0	0.0
Q4:	-55.0	0.0	0.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Appendix D

Certificate of Conformity

San Joaquin Valley
Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

☐ SIGNIFICANT PERMIT MODIFICATION ☐ ADMINISTRATIVE AMENDMENT

☒ MINOR PERMIT MODIFICATION

COMPANY NAME: **Styrotek, Inc.**	FACILITY ID: **S – 1075**
1. Type of Organization: ☒ Corporation ☐ Sole Ownership ☐ Government ☐ Partnership ☐ Utility	
2. Owner's Name:	
3. Agent to the Owner:	

II. COMPLIANCE CERTIFICATION (Read each statement carefully and initial **all** circles for confirmation):

DALE Based on information and belief formed after reasonable inquiry, the source identified in this application will continue to comply with the applicable federal requirement(s).

DALE Based on information and belief formed after reasonable inquiry, the source identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.

DALE Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.

DALE Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true accurate and complete.

I declare, under penalty of perjury under the laws of the state of California, that the forgoing is correct and true:

Dale E. Arthur
Signature of Responsible Official

6/15/11
Date

Dale Arthur
Name of Responsible Official (please print)

General Manager
Title of Responsible Official (please print)

Revise 400 hp boiler NOx emission limit for Rule 4320 compliance.

Mailing Address: Central Regional Office * 1990 E. Gettysburg Avenue * Fresno, California 93726-0244 * (559) 230-5900 * FAX (559) 230-6061